



**BalaJi MicroTechnologies**

“BRINGING NEXT GENERATION IMAGING TECHNOLOGY”

(A Unit of B.B. Group of Companies)

## **CORPORATE PROFILE**

### **Our Corporate Associations**



## Basic Corporate Data

Company Name	BalaJi MicroTechnologies Pvt. Ltd.
Legal Status	Registered under Indian Companies act'1955, Privately held company
Corporate Webpage	<a href="http://www.balaji-microtechnologies.com/">http://www.balaji-microtechnologies.com/</a>
Key Promoter	Mr. Nitin Aggarwal
List of Directors	Mr. Nitin Aggarwal Mr. Bharat Bhushan Aggarwal
Unit of	"A Unit of B.B. Group of Companies"
Financial Year Close	31st March
Corporate Headquarter/Management	New Delhi, India
Major Sales/Operation office	Faridabad, Haryana, India
Nature of business	Machine Vision product Manufacturer
Major Product line	Machine Vision/Medical Imaging Cameras Line Scan Cameras Machine Vision Lenses
Major focus area	FA/Machine Vision & Medical Imaging
Company Turnover	Multi Million USD Turnover with ~40% YoY growth
Major Markets (Exports)	Asia, Europe & North America
Major Banker	1. Kotak Mahindra Bank Ltd. India 2. HDFC Bank Ltd. India 3. Andhra Bank Ltd. India Currency Accounts : USD & INR
<b>KEY BOARD MEMBERS</b>	
President/CEO	Mr. Nitin Aggarwal
Corporate Lawyer	Mr. D.P. Aggarwal
Corporate Auditor	SG & Associates
Director of Business Development	Mr. B.P. Yadav
Finance Head	Mr. Sachin Aggarwal/Mr. D. Aggarwal

## FOUNDER PROFILE



**Mr. Nitin Aggarwal** is President and Chief Executive Officer (CEO) at **BalaJi MicroTechnologies**. He can be characterized as a technocrat/ researcher in the field of Micro-Electronics & first generation entrepreneur. He holds a Bachelor's degree in Electronics Engineering & Master's in SoC design at the University of Edinburgh, UK. He is backed up with strong techno/commercial experience across cross cultural boundaries. He brings extensive industry experience in varied functions and rich experience in Vision system domain, high speed Industrial/Medical imaging products development including firmware development. He constantly works to improve processes, methodologies and collaborative procedures in order to increase company efficiency



## Introduction - B.B. Group of Companies

### Our Mission/Vision:

To become world leading company in wide market domain, to bring cutting edge technologies to the worldwide marketplace

- Mr. B.B. Aggarwal, Chairman, B.B. Group of Companies, India.



Business with Global Reach

### Our History:

The group has started its journey since 1949. The group holds companies serving in several business domains like Cement Sheets, Steel business, wood panels, Electro/optical products, consumer/cosmetics etc. The group overall turnover is several Million's USD turnover with strong growth on YoY basis. The company is continuously investing on its infrastructure, R&D & its workforce. The group also holds foreign subsidiary companies in Europe & Asia as well. Mr. B.B. Aggarwal is chairperson for "B.B. Group of Companies".



Apart from the business prospective, we also actively take part in Corporate Social Responsibility (CSR). Our group companies spent reasonable percent of total revenue gained in social activities.

## Corporate Social Responsibility - BalaJi MicroTechnologies

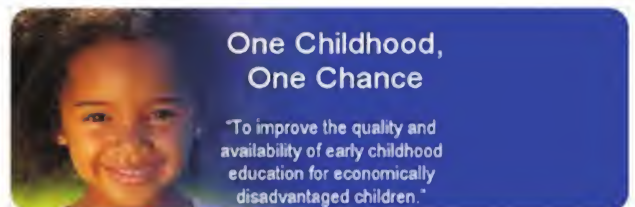
### Our Aim:

To contribute & participate in the Social & economical growth of the society we operate, to bring awareness, build better human life for the weaker part of the society.

- Mr. B.B. Aggarwal, Chairman, B.B. Group of Companies, India.

### Our Contribution:

Apart from the business prospective, We also actively take part in Corporate Social Responsibility (CSR). Our company along with other group companies spent reasonable percent of total revenue gained in social activities.



Food for Needy Children

*"We are dedicated to offer food on regular basis to needy children across the society."*

*"Offering free medical facilities for handicapped people"*

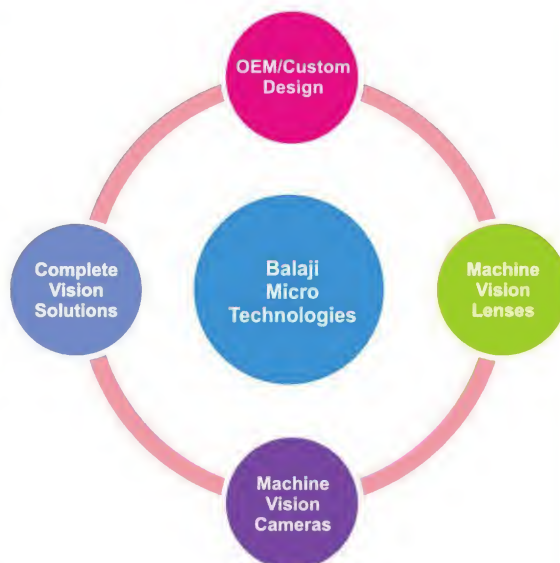


## About US-BalaJi MicroTechnologies

**BalaJi MicroTechnologies** is New Delhi, India based company; we are registered in India under Indian companies' act 1955. We are Multi-Million USD Turnover Company & unit of "B.B. Group of Companies". The group is into business since 1949.

"BalaJi MicroTechnologies is a renowned leading manufacturer of high performance digital imaging systems for wide variety of applications. The company designs, develops, manufacture & market machine vision solutions. Our company core interest lies in security/surveillance, Industrial/machine vision and medical imaging domain." In addition to strong footprint of business across PAN India, the company also exports to several countries around the world.

We have a highly talented and skilled team of engineers with expertise in machine vision applications and hardware and a track record of offering solutions for challenging technical problems.



Our Core Business Domain

### Our Core Business Domain

We also cater our customer's with our large portfolio of high speed machine vision cameras & Machine vision lenses & other associated optics which is required to build complete systems.

**BalaJi MicroTechnologies** holds strong expertise in OEM/custom design & development. Projects may include developing complete machine vision solution, or portion of it. **BalaJi MicroTechnologies** leverages its unique experience and expertise built over the years to offer research and development services to solve complex image processing problems and build innovative machine vision based solutions for OEM applications.

### Our key markets

We serve wide market segment with large variety of applications, Our key market vertical are:



**BalaJi MicroTechnologies** products & services deliver unrivaled image quality and innovative features for use in the world's most demanding commercial, industrial, and professional imaging applications.

### Our Corporate Associations





## Key Market Applications

We have seen tremendous growth over the years and recognize as one of the leading and highly experienced machine vision & medical imaging systems manufacturer in India. We have a highly talented and skilled multidisciplinary team of engineers with expertise in medical imaging & machine vision applications and a track record of offering solutions for challenging technical problems. Please find below some key highlight of the applications we are actively involved, however we are working in lot more challenging applications.



### **Vision based sorting**

We offers complete vision solutions for this segment of applications like food/pharma/currency & other allied vision based sorting etc. We can support for the entire development of the machine vision solution required or we shall also support for the portion of it. we have lucrative solution in terms of high speed line scan cameras, Mega Pixel machine vision lenses etc.



### **Medical/Scientific Applications**

We offer standard/custom Medical Imaging solution as per specific needs in the large number of medical applications like: C-ARM, X-ray Imaging, General Radiography and Dental X-ray to Angiography, Cardiology and DNA analysis, fluorescence, chemiluminescence, gel electrophoresis, quantitative microscopy and astronomy, microscopy and bioscience applications etc.



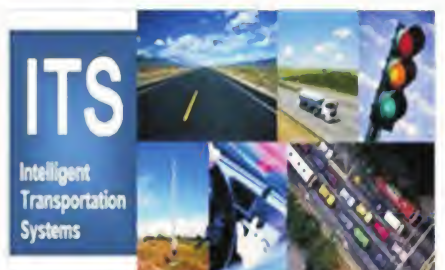
### **Pharma Applications**

Our Machine Vision Solutions are available for wide variety of applications in this segment like: Blister inspection, track & trace inspection & liquid level verification, code/batch print inspection, tablet inspection etc. in the pharmaceutical industry.



### **FA/Machine Vision Applications**

With our broad portfolio high speed machine vision cameras & high quality machine vision lenses, we are actively serving automated inspection applications in automotive, bottle inspection, Textile, PCB Inspection, Diamond bruter & diamond laser applications, Pencil inspection, colour analysis, sorting & many others etc



### **Intelligent Transportation Systems**

we are one of the leading manufacturer of high quality cameras & lenses which are actively used in Intelligent Transportation Systems, City surveillance, under vehicle surveillance system, Automated Number Plate Recognition (ANPR) including traffic enforcement as well many others etc.



## R&D Division



**BalaJi MicroTechnologies** holds strong expertise in customer specific application development. Projects may include developing machine vision solution, custom camera development and/or system integration. We have a highly talented and skilled multidisciplinary team of engineers with expertise in machine vision applications and hardware, and a track record of offering solutions for challenging technical problems.

**The BalaJi MicroTechnologies** leverages its unique experience and expertise built over the years to offer research and development services to solve complex image processing problems and build innovative machine vision based solutions for OEM applications.

**BalaJi MicroTechnologies** has developed one of the most comprehensive and unique set of capabilities in machine vision. Our customers know us for the exceptional quality of our products and the responsiveness of our people.



Medical Imaging



ITS/City Surveillance



FA Machine Vision

**BalaJi MicroTechnologies** develops products for many different applications and markets. Whatever your requirements, BalaJi MicroTechnologies have a solution that will meet your needs. We serve a wide variety of customers.

## "BalaJi Optics" - F Mount Machine Vision lenses



**BalaJi MicroTechnologies** is the first company in India manufacturing large format F-Mount Machine Vision lenses. The company designs, develops & manufacture large format F-Mount machine vision lenses. Our lenses are actively implemented in variety of applications like in FA/Machine Vision, ITS/Surveillance, Line Scan Applications, ANPR/UVSS & many others etc.

### Key Features:

- ❖ High resolution & high contrast
- ❖ Very low distortion
- ❖ Made of metal

Model No		BMT-50F18MP
Resolution		5 MP
Focal Length		50 MM
Iris Range		F 1.8~F 22
Lens Mount		F-Mount
Imager Format		43 MM (FULL FRAME)
Field of View		D (46.0°) x H (39.1°) x V( 26.5°)
Control	Focus	Manual
	Iris	Manual
Back Focal Length		37.3 MM
Minimum Object Distance (M.O.D)		0.4 M
Flange Back Length		46.5 MM
Distortion		<0.9 %
Filter Size		M52 P=0.75mm
Lens Structure		7 ELEMENTS, 6 GROUPS, (ALL GLASS)
Working Temperature (degree celcius)		-10~+50
Weight		TBD

**OEM/Custom design:** Should your application requires very specific optical specification, our strong R&D team can take care of custom specific lens development as well. Do let us know optical specification along with projected volume.



## "BalaJi Optics" - FA/Machine Vision lenses



**BalaJi MicroTechnologies** is the **first company** in India manufacturing Machine Vision lenses. The company designs, develops & manufacture machine vision lenses.

With strong in-house R&D & design efforts, our lenses are developed with optimal precision techniques & come with very low distortion & produce high quality images. Our lenses are actively implemented in variety of applications like in FA/Machine Vision, ITS/Surveillance & Medical Imaging Applications & many others etc.

### Key Features:

- ❖ High resolution & high contrast
- ❖ Very low distortion
- ❖ Made of metal

**"BALAJI OPTICS"** is brand name of **BalaJi MicroTechnologies, India**

MODEL NO:	Description	Focal Length	F#	IMAGER FORMAT	LENS MOUNT	FOCUS & IRIS CONTROL
<b>F-MOUNT Mega Pixel FA/Machine Vision lenses</b>						
BMT-50F18MP	5 Mega Pixel FA/ Machine Vision lens	50 MM	F 1.8~F 22	43 MM (FULL FRAME)	NIKON F-MOUNT	Manual
<b>2/3" format Mega Pixel FA/Machine Vision lenses</b>						
BMT-1412D	Mega Pixel Lens	12 MM	1.4	2/3"	C	Manual
BMT-1416D	Mega Pixel Lens	16 MM	1.4	2/3"	C	Manual
BMT-1425D	Mega Pixel Lens	25 MM	1.4	2/3"	C	Manual
BMT-1435D	Mega Pixel Lens	35 MM	1.4	2/3"	C	Manual
BMT-1850D	Mega Pixel Lens	50 MM	1.8	2/3"	C	Manual
BMT-2875D	Mega Pixel Lens	75 MM	2.8	2/3"	C	Manual
<b>1" format 5 Mega Pixel FA/Machine Vision lenses</b>						
BMT-1625M5	5 MP Mega Pixel Lens	25 MM	1.6	1"	C	Manual
<b>2/3" 5 Mega Pixel FA/Machine Vision lenses</b>						
BMT-18085MP	5 MP Mega Pixel Lens	8 MM	1.8	2/3"	C	Manual
BMT-18125MP	5 MP Mega Pixel Lens	12 MM	1.8	2/3"	C	Manual
BMT-16165MP	5 MP Mega Pixel Lens	16 MM	1.6	2/3"	C	Manual
BMT-16255MP	5 MP Mega Pixel Lens	25 MM	1.6	2/3"	C	Manual
BMT-18355MP	5 MP Mega Pixel Lens	35 MM	1.8	2/3"	C	Manual
BMT-26505MP	5 MP Mega Pixel Lens	50 MM	2.6	2/3"	C	Manual
<b>Standard Varifocal Lenses</b>						
BMT-160550VF	Varifocal lens	5~50 MM	1.6	1/3"	CS	Manual
BMT-165100VF	Varifocal lens	5~100 MM	1.4	1/3"	CS	Manual
BMT-1449VAR	Varifocal lens	4~9 MM	1.4	1/3"	CS	Manual
<b>Standard Camera Lenses</b>						
BMT-1408C3	3 Mega Pixel Lens	8 MM	1.4	1/2"	C	Manual
BMT-1412C3	3 Mega Pixel Lens	12 MM	1.4	1/2"	C	Manual

### Application Support:

If you need any additional support in finding right option solution for your application, please do kindly revert us with further details, our highly skilled optical team would be happy to assist you.

### OEM/Custom design:

Should your application requires very specific optical specification, our strong R&D team can take care of custom specific lens development as well. Do let us know optical specification along with projected volume. we shall make our proposal accordingly.



## "BalaJi Optics" - MegaPixel Board Camera lenses (M12 Mount)



**BalaJi MicroTechnologies** is the first company in India manufacturing Mega Pixel board camera lenses. The company designs, develops & manufacture S-Mount (M12x0.5) Lenses.

With strong in-house R&D & design efforts, our lenses are developed with optimal precision techniques & come with very low distortion & produce high quality images. Our lenses are actively implemented in variety of applications like in FA/Machine Vision, ITS/Surveillance & Medical Imaging Applications & many others etc.

### Key Features:

- ❖ High resolution & high contrast
- ❖ Very low distortion.

We are happy to introduce our wide range of Mega Pixel S-Mount (M12x0.5)

"BalaJi Optics" - Mega Pixel Board Camera Lens Series								
Models	Lens Type	Focal Length	Aperture	BFL	Field Angle (Horizontal Field)		Mount	Resolution
		(mm)	(F)	(mm)				
BMT-2425M	"BalaJi Optics" - Mega Pixel Board Camera Lens Series	2.5	2.4	4.98	1/2.5" 132°		M12xP0.5	5 MP
BMT-1829M		2.9	1.8	5.01	1/2.5" 117.5° / 1/3" 103.6°			5 MP
BMT-0229M		2.9	2	5.08	1/2.7" 122° / 1/3" 104°			5 MP
BMT-2629M		2.92	2.6	5.13	1/2.7" 126°			3 MP
BMT-0429M		2.97	4	3.50	1/2.5" 100.1° (DFOV)			5 MP
BMT-2430M		3	2.4	5.12	1/2.7" 130°			2 MP
BMT-1836M		3.6	1.8	7.55	1/2.5" 110° (DFOV)			5 MP
BMT-1836M		3.6	1.8	7.20	1/2.5" 96°			5 MP
BMT-1804M		4	1.8	7.72	1/2.5" 86°			5 MP
BMT-0246M		4.6	2	5.10	1/3" 62°			1 MP
BMT-1806M		6	1.8	9.60	1/2.5" 57°			5 MP
BMT-1808M		8	1.8	7.81	1/2.5" 42.5°			5 MP
BMT-1612M		12	1.6	6.45	1/2.7" 28°			2 MP
BMT-2812M		12	2.8	8.57	1/1.8" 41° (DFOV)			5 MP
BMT-1816M		16	1.8	6.57	1/2.7" 19.7°			2 MP
BMT-0225M		25	2	7.20	1/2" 18.6° / 1/3" 13.8°			3 MP
"Balaji Optics" - Fisheye Board Camera Lens Series								
Models	Lens Type	Focal Length	Aperture	BFL	Field Angle (Horizontal Field)		Mount	Resolution
		(mm)	(F)	(mm)				
BMT-0210F44	Fisheye	1.08	2	4.4	185°	185°	M12xP0.5	5 MP
BMT-0214F36		1.41	2	3.69	183°	180°		9 MP
BMT-2415F29		1.49	2.4	2.94	182°	152°		
BMT-2518F46		1.8	2.5	4.6	~	170°		
"BalaJi Optics" - Wide Angle Camera Lens Series								
Models	Lens Type	Focal Length	Aperture	BFL	Field Angle (Horizontal Field)		Mount	Resolution
		(mm)	(F)	(mm)				
BMT-2219W	Wide Angle	1.95	2.2	4.7	~	156°	M12xP0.5	
BMT-2420W		2	2.4	2.1	~	156°		
BMT-20211W		2.1	2	4.9	151°	120°		
BMT-2022W		2.2	2	5.2	~	150°		
BMT-2025W		2.5	2	7.2	140°	110°		
BMT-2029W		2.9	2	5.0	138°	104°		
"Balaji Optics" - Standard Camera Lens Series								
Models	Lens Type	Focal Length	Aperture	BFL	Field Angle (Horizontal Field)		Mount	Resolution
		(mm)	(F)	(mm)				
BMT-0236S	Standard	3.6	2	5	100°	78°	M12xP0.5	
BMT-0261S		6.1	2	8.03	58°	42.5°		
BMT-0212S		12	2	8.9	29°	19.2°		
BMT-0216S		16	2	9.98	22°	16°		

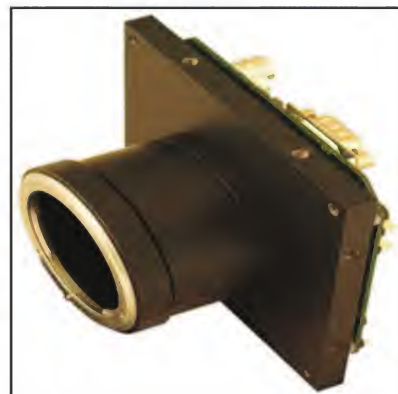
**OEM/Custom design:** Should your application requires very specific optical specification, our strong R&D team can take care of custom specific lens development as well.



## Line Scan Cameras

**BalaJi MicroTechnologies** is the first company in India manufacturing high speed line scans cameras as commercial products. The company designs, develops & manufacture wide range of standard & custom Line Scan Cameras.

Our cameras are actively implemented in variety of applications like fast moving and High speed inspections like Food/multigrain sorting, paper, web inspections, ceramic tiles, wood, print inspections & other vision based sorting applications etc.



### Featured Product: Model BMT-2098C-A

Name	Specification
Camera Model	BMT-2098C-A
Resolution	2098 Tri-Linear CCD
Pixel size	14×14 (μm×μm) (8 lines spacing)
MAX. data rate	20 MHz×3
MAX. line rate	~ 9.2 KHz
Lens mount	Nikon F-Mount
Spectral response	400nm~ 700nm Typical
Analog data format	0V to 5V@ 75Ω coax axial connectors
Digital IO format	RS-644 LVDS / 5V TTL for BNC SYNC output
Sync modes	Free-run / External Sync / External Clock
Integration time	16 bit via serial
Gain & Offset	through potentiometer on board
Power supply	12VDC, 5%
Power dissipation	< 4W
Working temp.	-10 to 50 / 20% to 80%
Storage temp.	-40 to 75 / 10% to 90%
Dimensions	100mm(W)×100mm(H)×75mm(D) with lens mount
Weight	< 500 GM

### Features:

- ❖ BMT-2098C-A is equipped with line scan image sensor consists of three parallel photodiode array, one for each primary color.
- ❖ BMT-2098C-A is Industrial Analog Colour Line Scan Camera. It operates with single DC 12V supply.
- ❖ The camera output RGB through BNC Connectors.

### Applications:

- ❖ Our Line Scan cameras are widely used in Fast moving and High speed inspections like Food sorting, paper, web inspections, ceramic tiles, wood, print inspections etc.

### Other Camera models:

- ❖ 2098 pixel Line Scan Camera with Camera Link interface.
- ❖ 2048 pixel Line Scan Camera with Camera Link interface & LVDS interface

## Our FA/Machine Vision & Medical Imaging Cameras

We offer wide range of FA/Machine vision & Medical Imaging Cameras. Our standard specifications of cameras include:

- Camera Type: Analog or Digital Cameras
- Resolution range: wide range options
- Image Sensor's type: CCD or CMOS based camera's
- Interface options: USB 2.0/USB 3.0/GigE/CameraLink/Firewire
- Version: Colour or Monochrome
- Mechanical: Housing or Board level

**OEM/Custom design:** Should your application requires very specific camera specification, our strong R&D team can take care of custom specific camera development as well

## Analog Cameras

**BalaJi MicroTechnologies** is pleased to introduce ultra high performance analog cameras as commercial products. The company designs, develops & manufacture wide range of standard & custom Analog Cameras.

Our cameras are actively implemented in variety of applications like Security/Surveillance, FA/Machine Vision, Diamond measurement, Medical Imaging & other vision based applications etc.

### Key Features:

- ❖ 1/2" Imager format
- ❖ 720 TVL, High resolution
- ❖ Extremely low illumination i.e. 0.00008 LUX
- ❖ High dynamic range pixel with high sensitivity
- ❖ 10 bit High Performance Image Signal Processor?
- ❖ H/V mirror

Model.	BMT-720BW-A
Imager format	1/2 inch Imager format
Total Pixels	768 (H)×582 (V)
Camera system	PAL / NTSC
Scanning	2:1 Interlace
Scanning Frequency	15.734 KHz(H), 59.94 Hz(V)
Sync.	Internal
Horizontal Resolution	720 TV Lines
Video Output	1.0 Vp-p (75 ohm, composite)
Burst level	0.3 Vp-p~0.33 Vp-p
Gamma	0.45
S/N Ratio	52 DB
WDR	90 DB
Minimum illumination	Color : 0.05 Lux, BW : 0.00008 lux
Shutter Speed	1/50(1/60)~1/100000 sec
White Balance	AUTO

NOTE: for complete Technical Datasheet, Please contact us

## Alliance Program

The "**BalaJi MicroTechnologies Alliance Program**" is an initiative inviting qualified companies to collaborate with BalaJi MicroTechnologies to help customers develop products and solutions faster and with confidence on targeted market domain.

**BalaJi MicroTechnologies** is actively interested in forming alliances with the industry's leading companies to enhance its presence in focus market verticals. BalaJi MicroTechnologies products and support provide a competitive advantage to our potential Partners, allowing them to provide greater value to their customers and making them top solution providers in today's increasingly competitive market.

### Invitation:

- ❖ We are inviting companies/organization for "strategic alliance" who is sharing same passion for technology.
- ❖ We are also interested to hear from companies interested to jointly develop any innovative project. Our company may also invest on such project.

### For further discussion and proposal:

Please drop an email at: [alliances@balaji-microtechnologies.com](mailto:alliances@balaji-microtechnologies.com)



## **Contact us**

**BalaJi MicroTechnologies is New Delhi, India based company.  
Our Sales operation office & warehouse is located at Faridabad, India.**

### **Sales/Operation Office:**

Address:

**BalaJi MicroTechnologies Pvt. Ltd.**

(A Unit of B.B. Group of Companies)

D-2/20, Sector-10, DLF Faridabad

Haryana-121006, INDIA

**Telephone: +91-129-6561300, +91-129-4006203**

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**For India (Domestic) sales**  
**[sales.india@balaji-microtechnologies.com](mailto:sales.india@balaji-microtechnologies.com)**

**For overseas sales**  
**[sales.overseas@balaji-microtechnologies.com](mailto:sales.overseas@balaji-microtechnologies.com)**

**To become our distributor**  
**[partner@balaji-microtechnologies.com](mailto:partner@balaji-microtechnologies.com)**

**For General Information**  
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**For Alliance partner program**  
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**For PR/media**  
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## Our Corporate Associations

